



MEMORANDUM

From:	Joga Majumdar, Cathy Sheehan, Michael Kay	Regarding:	Comparison Between IgCC / ASHRAE 189.1 and LEED 2009
To/Via:	David Dise, Ernie Lunsford	Date:	November 22, 2011

Remarks:

Overview:

1. Created by ICC with input from AIA and USGBC to codify the progress in sustainable design that LEED has gained
2. In general the baseline for IgCC seems to be less stringent than LEED.
3. IgCC allows owners to follow it or ASHRAE 189.1 so in order to provide complete input to this discussion DGS really needs a final version of IgCC and time to do detailed comparison to ASHRAE 189.1.
4. Most likely makes sense to adopt IgCC without optional compliance path for ASHRAE 189.1 since it coordinates with other I-codes and Montgomery County is not already using ASHRAE 189.1 (i.e. go straight to the Code rather than adopt the code that uses a 'standard' as the basis of enforcement).
5. Design professionals are familiar with LEED and ASHRAE 90.1, so this code will mean a relatively significant learning curve, which in turn will have a significant impact on design time, fees and processing.
6. Editorial: It requires owners to build ultra-sophisticated, technically smart buildings that under County budget restrictions are not maintained and due to operating costs. It may be counterproductive in that these facilities will deteriorate to the point where they need to be abandoned/torn down...

Concerns & Potential Costs (partial list):

7. Building Service Life shall not be less than 60 years [505].
 - a. Current lifespan/expectation is approximately 30-40 years and we are making sound decisions for durability – not sure where to look for guidance on realistically meeting this requirement or gauging it's success
 - b. Who will determine project meets the 60-year mark?
 - c. Future reconfiguration/adaptability requirement [505.1.2] – how does this apply to public facilities such as police stations, fire stations, recreation centers, libraries, judicial and detention facilities?
8. Commissioning and continued commissioning
 - a. More complex systems will cost more to commission (more equipment, more meters, more sensors, more reporting, etc.)
 - i. These systems will now be required to be re-commissioned 18-24 months after construction and then some will be required to be tested/inspected annually
 - ii. Maintaining more complex buildings will drive up operating costs in terms of parts and labor while likely driving down energy consumption costs

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9. Examples of Site Concerns:

- a. Conservation areas require 50' buffer under IgCC whereas under LEED there is no min. buffer requirement
 - b. No building on agricultural land (with few exceptions) – this would have prevented MCCC from being built and could impact North County Maintenance Depot and/or other such infrastructure projects for development
 - c. Limitation on Greenfield Development, Clarksburg Fire Station may not meet the distance requirements to population density.
 - d. Limitation of 40% turfgrass on a building site
 - e. WSSC Plumbing and Fuel Gas Code will need to be revised to allow graywater re-use and rainwater harvesting.
 - f. Limitation on noise levels [807.4] are more restrictive than County Noise Ordinance
10. Costs will escalate over the life of the building for maintenance and requirements for purchase of renewable energy, etc. therefore lack of flexibility and potential for penalties will have an impact on overall costs.
11. Staff and design team costs to account for learning curve, documentation, design options, additional meetings, continual commissioning, enforcement, etc.

Reactions from the Industry:

12. USGBC has become inconsistent in their credit interpretations therefore LEED consulting firms think their poor service, lack of professionalism, inexperienced people and random interpretations provide an opening for jurisdictions to change to an enforceable tool.
13. LEED will still be pursued for exemplary buildings due to the rating system.

Initial Questions:

14. Will we lose our flexibility in design / professional latitude/do we have choices,
 - a. Choices for baseline requirements are either prescriptive or performance-based
 - b. Electives (if required) offer an opportunity for choice
15. Will it drive up the cost of our projects
 - a. Yes and also in terms of ongoing maintenance.
16. Does it make the building greener?
 - a. Yes, in that the requirement for continued commissioning will result in maintaining buildings at the design level.

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Questions for DPS:

17. Does DPS anticipate that MD will adopt this code? If so, when? How soon thereafter does DPS plan to submit recommendation to County Council?
18. Does DPS plan to submit recommendation with any amendments?
19. Will requirement for LEED Silver be deleted when IgCC is adopted by MD/MCG?
 - a. (If not, it will cause confusion and additional project costs to run through the rating system)
20. Does DPS anticipate there will be levels of compliance similar to LEED silver, gold and platinum to provide owners recognition for constructing to a higher degree of sustainability?
21. Who will review documents submitted to determine compliance with IgCC?
 - a. What impact will this have on permit review time?
 - b. What impact will this have on permit fees?
 - c. Who will perform code interpretations and advise design teams regarding supporting documentation (this ends up being volumes of info)?
 - d. Will submission of documentation be via online uploads?
 - e. Will standardized templates for supporting documentation be available?
 - f. How will DPS handle review of commissioning documentation?
 - g. Will this affect time to approve building for C of O?
22. What are the consequences if initial and continued commissioning documents are not provided to owner?
23. At what point/threshold will existing buildings need to be upgraded?
24. Who will, and how will testing/commissioning agencies be approved [612.4.2 and 902.1] (all disciplines including envelope) [must be acceptable to the AHJ]
 - a. has potential to drive costs up as approved providers realize potential to capitalize on their position
 - b. has potential to impact project schedules if approved providers are unable to meet demands
25. What 'Jurisdictional Requirements' is DPS contemplating? [302.1(2)]
26. How many 'Project Electives' is DPS contemplating? [302.1(3), 303.1]
27. How will DPS ensure that the building code and land development interpretations are internally consistent and then again with WSSC
28. This (IgCC) commingles the building and plumbing codes and gives the AHJ the authority to issue a permit. WSSC's currently has authority over the IPC and has issued amendments to it which disallow certain sustainability measures of the IgCC such as grey water reuse and rainwater harvesting. How will these inconsistencies be resolved for enforcement?
29. Perhaps it's better to adopt this in 2015 when the kinks have been worked out.

Final Comment:

Note: This list is an overview and not a thorough review of the requirements. In order to provide substantive input it would be best to review the final version of IgCC in March 2012 along with intended Jurisdictional Requirements.